

LICENSED:
NEVADA, CALIFORNIA,
DISTRICT OF COLUMBIA

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LAS VEGAS, NEVADA 89109

April 14, 1998

Mr. John Kemmerer
Chief, Superfund Site Cleanup Branch
Region IX
United States Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105-3801

HAND DELIVERED

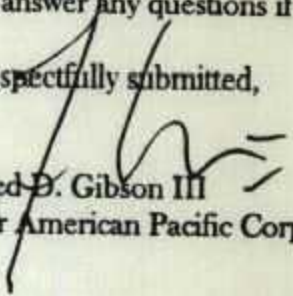
Dear Mr. Kemmerer,

Please consider this letter and the companion letter in which a claim for confidentiality of certain information has been made to be a response to your letter dated March 11, 1998, and received by American Pacific Corporation (the "Company") on March 16, 1998.

The Company has provided me with its answers and has done its best to be responsive and timely in its response. Please take special note that the series of explosions and fire the Company experienced on May 4, 1988, at its Henderson, Nevada production facility destroyed most of the Company's business records. Consequently, the historical information presented from December 1958 through May 1988 has been prepared and based upon all available documentation.

The Company's records reflecting its Cedar City, Utah business activity are complete and the Company's responses to questions pertaining to that activity are fully documented. The Company and I also request that we have the opportunity to supplement these responses or answer any questions if you believe such assistance would be helpful.

Respectfully submitted,


Fred D. Gibson III
For American Pacific Corporation

INFORMATION REQUEST - RESPONSES

Questions Concerning the former PEPCON Facility in Henderson, NV

1) What year did production of perchlorate-containing chemicals begin?

Response: December, 1958.

2) What entities have owned and/or operated the plant? Please provide the dates when ownership or operating control changed.

Response: Pacific Engineering and Production Co. of Nevada, PEPCON. In 1982 PEPCON was merged with American Pacific Corporation.

3) Which specific perchlorate-containing compounds were manufactured?

Response: Ammonium Perchlorate, Sodium Perchlorate.

4) What was the total annual production of perchlorate-containing compounds at the plant in Henderson, Nevada? What was the annual production of each specific perchlorate containing compound?

Response: See Attachment A.

5) What were the end uses of the perchlorate-containing compounds (solid rocket fuel, pyrotechnics)?

Response: Oxidizer component in solid rocket fuel. Component in explosive.

6) What was the approximate percentage of production sold for each of the end uses?

Response: 99% Oxidizer. 1% Explosive component.

7) Please provide the name and address of each entity to whom perchlorate-containing compounds were shipped each year from the former PEPCON facility. (more than 500 pounds in any year)

Response: See Attachment B.

Questions Concerning Other American Pacific Production Facilities and Other Producers

8) Please identify the locations of other perchlorate-containing chemical production facilities in the United States that are owned, operated or previously owned or operated by American Pacific including the WECCO plant in Cedar City, Utah.

Response: PEPCON, Henderson, Nevada - 1959 - 1988.
WECCO, Cedar City, Utah - 1989 - Present.

9) Please provide answers to the above questions (1 through 7) for any other American Pacific facilities producing or previously producing perchlorate-containing compounds.

Response: As Follows.

Questions Concerning the WECCO Facility in Cedar City, Utah

(1) What year did production of perchlorate-containing chemicals begin?

Response: 1989.

(2) What entities have owned and/or operated the plant? Please provide the dates when ownership or operating control changed.

Response: WECCO is a wholly owned subsidiary of American Pacific Corporation.

(3) Which specific perchlorate-containing compounds were/are manufactured?

Response: Ammonium Perchlorate. Sodium Perchlorate Solution. Anhydrous Sodium Perchlorate. Potassium Perchlorate.

(4) What was the total annual production of perchlorate-containing compounds at the plant in Cedar City, Utah? What was the annual production of each specific perchlorate containing compound?

Response: See Attachment C.

(5) What were the end uses of the perchlorate-containing compounds (solid rocket fuel, pyrotechnics etc.)?

Response: Oxidizer in solid rocket fuel. Component in explosive. Pyrotechnic. Air bag inflator component. Curing agent.

(6) What was the approximate percentage of production sold for each of end uses?

**Response: Oxidizer - 92%
Explosive - 7%
Other - 1%**

(7) Please provide the name and address of each entity to whom perchlorate-containing compounds were shipped each year from the WECCO facility. (more than 500 pounds in any year)

Response: See Attachment D.

10) EPA has been informed that production of perchlorate-containing compounds in the US is limited to WECCO in Cedar City, Utah (formerly the PEPCON facility in Henderson, Nevada) and Kerr-McGee. Please confirm, to the best of your knowledge, whether this information is accurate. If you do have knowledge of perchlorate-containing compound production plants in the US other than those owned or operated by American Pacific or Kerr-McGee, please provide the names, locations and years of operation, if known.

Response: GFS, George Frederick Smith, Columbus, Ohio since 1928. Perchlorates and perchloric acid. Mailing Address: P.O. Box 245, Powell, OH 43065.

Internet:

<http://www2.thomasregister.com/ss/.409911604/olc/gfschem/gfscat.htm>
and page [/ss/.1223160775/olc/gfschem/gfshist.htm](http://www2.thomasregister.com/ss/.1223160775/olc/gfschem/gfshist.htm) (perchlorates are found on these pages)

ATTACHMENT A

Question 4: What was the total annual production of perchlorate-containing compounds at the plant in Henderson, Nevada? What was the annual production of each specific perchlorate containing compound?

Response: The business records of American Pacific were destroyed as a result of the fire and explosions which occurred May 4, 1988. Based on information available the production of perchlorate products has been reconstructed. For years when the data is less certain the production is estimated and is identified with the letter "e." Nevertheless, we believe that for the purpose of responding to this question the following table is responsive.

| Fiscal Year | Perchlorates (lbs.)* | |
|----------------|----------------------|----------|
| | Ammonium | Sodium |
| 1959 | 1,214,000 | --- |
| 1960 | 2,500,000e | --- |
| 1961 | 3,900,000e | --- |
| 1962 | 8,275,000 | --- |
| 1963 | 15,306,000 | --- |
| 1964 | 11,780,000 | --- |
| 1965 | 3,795,000 | --- |
| 1966 | 6,095,000 | --- |
| 1967 | 3,450,000 | --- |
| 1968 | 2,070,000 | --- |
| 1969 | 5,427,000 | --- |
| 1970 | 4,256,000 | --- |
| 1971 | 10,768,000 | --- |
| 1972 | 11,730,000 | --- |
| 1973 | 8,855,000 | --- |
| 1974 | 6,900,000 | --- |
| 1975 | 4,370,000 | --- |
| 1976 | 3,565,000 | --- |
| 1977 | 3,910,000 | --- |
| 1978 | 3,816,000 | --- |
| 1979 | 5,000,000e | --- |
| 1980 | 5,154,000e | --- |
| 1981 | 8,571,000e | --- |
| 1982 | 13,333,000e | --- |
| 1983 | 13,551,000e | --- |
| 1984 | 13,736,000e | --- |
| 1985 | 14,600,000 | --- |
| 1986 | 13,981,000e | 56,000e |
| 1987 | 14,344,000e | 112,000e |
| 1988 | 9,649,000e | 56,000e |

*Data are rounded to the nearest thousand pounds.

ATTACHMENT B

Question (7): Please provide the name and address of each entity to whom perchlorate-containing compounds were shipped each year from the former PEPCON facility. (more than 500 pounds in any year)

Response: The records were destroyed in 1988. Therefore, the list has been reconstructed based on the best information available. The list identifies customers over periods of greater than one year. This list combined with the list in response to the same question for the WECCO facility is believed to be sufficient.

| <u>Year</u> | <u>Customer</u> |
|-------------|---|
| 1959 - 1965 | Aerojet General - Highway 50 and Hazel Avenue, Rancho Cordova, CA 95670 Thiokol - Hwy 83 Bldg M-3 Receiving, Thiokol, Utah 84302 |
| 1964 - 1988 | UTC - 600 Metcalf Road, San Jose, CA 95318 Thiokol - as above. |
| 1985 - 1988 | UTC - as above. Thiokol - as above. ARC - Highland Industrial Park, East Camden AR 71701 |
| 1986 - 1988 | Brazil Europe |

Perchlorate Shipments

For Customers Exceeding 500 Pounds in Any Fiscal Year
Fiscal Year Ending September 30, 1989 to 1998

| Customer | Address |
|----------|---------|
|----------|---------|

Fiscal Year Ending September 30, 1989:

| | |
|---------------------|--|
| ARC | Highland Industrial Park, East Camden AR 71701 |
| Thiokol Corporation | Hwy 83 Bldg M-3 Receiving Thiokol UT 84302 |
| UTC | 600 Metcalf Road, San Jose CA 95138 |

Fiscal Year Ending September 30, 1990:

| | |
|---------|--|
| Aerojet | Highway 50 and Hazel Avenue Rancho Cordova, CA 95670 |
|---------|--|

| | |
|------------------|--|
| ARC | Highland Industrial Park, East Camden AR 71701 |
| Failure Analysis | 1850 Finnacle Peak Road, Pheonix, AZ 85027 |

| | |
|----------|--|
| Hercules | Niro Plant, 7900 West 4100 South, West Valley City, UT 84120 |
|----------|--|

| | |
|---------------|--|
| Thiokol-Space | Hwy 83 Bldg M-3 Receiving Thiokol UT 84302 |
| UTC | 600 Metcalf Road, San Jose CA 95138 |

Fiscal Year Ending September 30, 1991:

| | |
|---------|--|
| Aerojet | Highway 50 and Hazel Avenue Rancho Cordova, CA 95670 |
|---------|--|

ATTACHMENT D

Perchlorate Shipments

For Customers Exceeding 500 Pounds in Any Fiscal Year
Fiscal Year Ending September 30, 1989 to 1998

| Customer | Address |
|----------|---------|
|----------|---------|

| | |
|-------------------|---|
| Thiokol-Space | Hwy 83 Bldg M-3 Receiving Thiokol UT 84302 |
| Thiokol-Strategic | Bldg M3 Receiving Hwy 83, Brigham City UT 84302 |
| Thiokol-Strategic | Hwy 83 Bldg M-3 Receiving Thiokol UT 84302 |
| Thiokol-Tactical | Hwy 83 Bldg M-3 Receiving Thiokol UT 84302 |

Fiscal Year Ending September 30, 1992:

| | |
|---------|--|
| Aerojet | Highway 50 and Hazel Avenue Rancho Cordova, CA 95670 |
|---------|--|

| | |
|----------------------|---|
| Thiokol-Space UTC | Hwy 83 Bldg M-3 Receiving Thiokol UT 84302 600 Metcalf Road, San Jose CA 95138 |
|----------------------|---|

Fiscal Year Ending September 30, 1993:

| | |
|---------|--|
| Aerojet | Highway 50 and Hazel Avenue Rancho Cordova, CA 95670 |
| ARC | Highland Industrial Park, East Camden AR 71701 |

Perchlorate Shipments

For Customers Exceeding 500 Pounds in Any Fiscal Year
Fiscal Year Ending September 30, 1989 to 1998

| Customer | Address |
|----------|---------|
|----------|---------|

| | |
|----------|--------------------------------------|
| Hercules | Bldg 55 Baccus Works, Magna UT 84044 |
|----------|--------------------------------------|

| | |
|----------------------|---|
| Thiokol-Space UTC | Hwy 83 Bldg M-3 Receiving Thiokol UT 84302 600 Metcalf Road, San Jose CA 95138 |
|----------------------|---|

Fiscal Year Ending September 30, 1994:

| | |
|----------------|--|
| Aerojet ARC | Highway 50 and Hazel Avenue Rancho Cordova, CA 95670 Highland Industrial Park, East Camden AR 71701 |
|----------------|--|

| | |
|----------------------|---|
| Thiokol-Space UTC | Hwy 83 Bldg M-3 Receiving Thiokol UT 84302 600 Metcalf Road, San Jose CA 95138 |
|----------------------|---|

ATTACHMENT D

Perchlorate Shipments

For Customers Exceeding 500 Pounds in Any Fiscal Year
Fiscal Year Ending September 30, 1989 to 1998

| Customer | Address |
|----------|---------|
|----------|---------|

Fiscal Year Ending September 30, 1995:

Aerojet

Highway 50 and Hazel Avenue Rancho Cordova, CA 95670

Alliant TechSystems

Niro Plant, 7900 West 4100 South, West Valley City, UT 84120

ARC

Highland Industrial Park, East Camden AR 71701

Thiokol-Space

Hwy 83 Bldg M-3 Receiving Thiokol UT 84302

Fiscal Year Ending September 30, 1996:

Aerojet

Highway 50, and Hazel Ave, Rancho Cordova CA 95670

Alliant TechSystems

Niro Plant, 7900 West 4100 South, West Valley City, UT 84120

ARC

Highland Industrial Park, East Camden AR 71701

ATTACHMENT D

Perchlorate Shipments
For Customers Exceeding 500 Pounds in Any Fiscal Year
Fiscal Year Ending September 30, 1989 to 1998

| Customer | Address |
|----------|---------|
|----------|---------|

| | |
|---------------|--|
| Thiokol-Space | Hwy 83 Bldg M-3 Receiving Thiokol UT 84302 |
|---------------|--|

Fiscal Year Ending September 30, 1997:

| | |
|----------------------------|--|
| Alliant TechSystems ARC | Niro Plant, 7900 West 4100 South, West Valley City, UT 84120 Highland Industrial Park, East Camden AR 71701 |
|----------------------------|--|

| | |
|--|--|
| Thiokol-DLV Thiokol-Elkton Thiokol-Space | Bldg M-345 Receiving, Brigham City, UT 84302-0689 55 Thiokol Road, Elkton, MD 21921 Hwy 83 Bldg M-3 Receiving Thiokol UT 84302 |
|--|--|

ATTACHMENT D

Perchlorate Shipments

For Customers Exceeding 500 Pounds in Any Fiscal Year
Fiscal Year Ending September 30, 1989 to 1998

| Customer | Address |
|----------|---------|
|----------|---------|

Fiscal Year Ending September 30, 1998:

| | |
|---------------------|--|
| Aerojet | Highway 50 and Hazel Avenue, Gate 1 Rancho Cordova, CA 95670 |
| Alliant TechSystems | Niro Plant, 7900 West 4100 South, West Valley City, UT 84120 |
| ARC | Highland Industrial Park, East Camden AR 71701 |

| | |
|----------------|--|
| Thiokol-Elkton | 55 Thiokol Road Elkton, MD 21921 |
| Thiokol Space | Building M-345 Receiving Brigham City, UT 84302-0689 |

ATTACHMENT D